

## Remarks

The paragraph beginning on page 1, line 3 is amended to change the wording of the priority claim from "priority to" to " benefit of."

Claims 16, 61, and 79 as well as the paragraph beginning on page 29, line 3, page 43, line 11, and page 48, line 1 are each amended to change "2-hydroxy-2-methyl-1-phenyl-1-propane" to 2-hydroxy-2-methyl- 1-phenyl-propan-1-one" which is the correct name for DAROCUR 1173. The manufacture product description is attached for the convenience of the Examiner. No new matter is added by these amendments.

Claim 49 is amended to change the dependency from claim 48 to claim 82. This amendment was previously submitted but the claim was improperly designated. Accordingly, the amendment is being resubmitted.

Respectfully submitted,

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Date: 2/4/05

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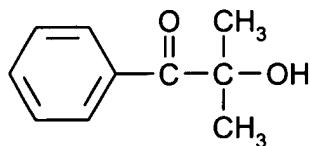
**Ciba**

## **Ciba® DAROCUR® 1173 Photoinitiator**

### **General**

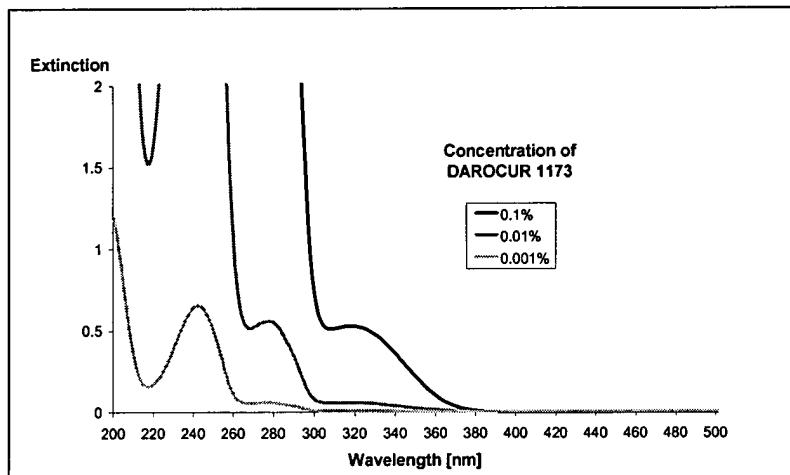
DAROCUR 1173 is a versatile highly efficient liquid photoinitiator which is used to initiate the photopolymerisation of chemically unsaturated prepolymers - e.g. acrylates - in combination with mono- or multifunctional monomers.

### **Chemical Structure**



2-Hydroxy-2-methyl-1-phenyl-propan-1-one  
Molecular weight: 164.2      CAS No. 7473-98-5

### **Absorption Spectrum (% in Acetonitrile)**



### **Physical Properties**

Appearance: colorless to slightly yellow liquid

Odor: slight

Miscibility: in most common organic solvents as well as most acrylate based monomers exceeds 50g/100g; practically insoluble in water.

Melting point: 4°C

Boiling point (at 0.13 mbar ~ 0.1 Torr): 80 - 81°C

Flashpoint: > 100°C

Density: 1.08 g/cm<sup>3</sup>

Viscosity (at 20°C): 25 mPa's

### **Application**

DAROCUR 1173 may be used after adequate testing for applications such as UV curable clear coatings based on acrylates for paper, metal

# Ciba® DAROCUR® 1173

## Photoinitiator



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and plastic materials.

As a liquid UV curing agent with excellent compatibility, DAROCUR 1173 is especially easy to incorporate. It is therefore highly suitable for blends with other photoinitiators.

DAROCUR 1173 is especially recommended when UV coatings are required to exhibit only minimal yellowing even after prolonged exposure to sunlight. Yellowing of urethane acrylates may be further reduced by addition of Ciba Specialty Chemicals' hindered amine light stabilizer TINUVIN® 292.

The amount of DAROCUR 1173 required for optimum performance should be determined in trials covering a concentration range.

### Recommended concentrations :

film thickness :	5 - 20 µm	2.0 - 4.0 % DAROCUR 1173
film thickness :	20 - 200 µm	1.0 - 3.0 % DAROCUR 1173

### Safety and Handling

DAROCUR 1173 should be handled in accordance with good industrial practice. Detailed information is provided in the Safety Data Sheet.

### Trademark

DAROCUR is a registered trademark.

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